

NASA Grants 3 Million For New Space Center

Construction will begin late this year on a new Space Research Center financed primarily by a National Aeronautics and Space Administration facilities grant.

President Stratton made public Saturday the agreement between himself and NASA administrator James Webb under which the Institute receives \$3 million from NASA for the center. MIT will provide \$1 million from the Second Century Fund to supplement this.

The center will be constructed on Vassar Street directly behind building 31. Its five stories will contain about 100,000 square feet of space for laboratories, offices, and classrooms. Construction will take about two years.

A director for the center has not been chosen yet. At present, planning is in the hands of the Faculty Committee on Science and Engineering Connected with Outer Space, which is headed by Provost C. H. Townes. A director will probably be chosen within the next month, according to the committee, and assembly of a staff will then begin.

NASA will also augment the grant for the Cen-

ter itself with increases in grants for research and fellowship, which now total about \$1.5 million. The increases will range from \$500,000 to \$1 million per year for the next three or four years.

Over 20 percent of the faculty of the Institute is presently engaged in space research, said President Stratton, with more than 140 professors from 14 departments and 4 schools represented.

A total of more than 500 people, including faculty, research assistants, and graduate students, are working in this field at MIT, he said. In 1961, 15 percent of the candidates for graduate degrees at MIT carried out research and wrote theses in space-related fields. These factors figured in the NASA decision to grant the money.

The center is to serve as an extra-Institute focal point for campus-related research, Stratton said, and will permit greater interaction among the disciplines involved in the US space program.

Said Stratton: "The Institute is now at a point where this new center is crucial to the appropriate development of MIT's commitment to advanced research and teaching in space-related fields."

3-Day Event Next Month

Winter Weekend To Have Si Zentner, Bo Diddley

By Ron Frashure

Winter Weekend, Feb. 21-23, will feature entertainment by Bo Diddley and Si Zentner's orchestra.

The schedule of this all-Institute Weekend is as follows:

Thursday night, Feb. 21: basketball game with Coast Guard Academy. Faculty will play students between halves in a match sponsored by T-Club. Bo Diddley will entertain until 1:00 a.m. after the game.

Friday night, Feb. 22 (Washington's Birthday): formal dance in the Armory, with music by Si Zentner's orchestra.

Saturday afternoon, Feb. 23: two cocktail parties sponsored by IFC, and a Dormcon-sponsored folk-sing featuring Jackie Washington. The three parties will be open to all attending the Weekend.

Saturday night—musical entertainment followed by a dance band at 11:00. According to Barton Weitz '63, Winter Weekend Committee Chairman, the choice of Saturday night's entertainment is not final, since the contract hasn't yet been returned.

675 tickets will be sold to undergraduates. Weitz adds that the ticket price will be about \$12.50.

Both Friday and Saturday nights' events will be in the Armory, and the seating capacity for both nights will be the same. Thus there will be no split tickets for Weekend events, with the exception of a few Friday-night-only tickets that are reserved for the faculty.

The policy of not selling split tickets was partly required by the

(Please turn to page 2)

Thurman at Convocation



Dr. Howard Thurman, Dean of Marsh Chapel of Boston University, speaking at the Christmas Convocation at Dec. 19.

—Photos by Joseph Baron

To Visit India, Africa

Strattons On 5-Week Trip

President and Mrs. Julius Stratton embarked Saturday on a five week trip to Africa and India. Dr. Stratton, a trustee of the Ford Foundation, is making the trip to observe some of its activities abroad.

After making a stop in Rome, Dr. Stratton will arrive in Lagos, Nigeria, January 8, on and at Nairobi, Kenya, on January 15. While in Africa he will meet with some of the 17 MIT fellows who, in a Ford Foundation sponsored program, are spending two years in various countries as staff workers for governments and development corporations.

Stratton plans to arrive in Bombay January 21, and will visit the Tata Institute and the Technical Institute there.

On January 30 he will visit the Indian Institute of Technology in Kanpur, a new institution being developed with the aid of nine American universities in a program led by Prof. Norman Dahl of MIT.

From there he will go to Calcutta, where he will visit the Calcutta Management Institute and the Metropolitan Planning Organization, and to Kathmandu, Nepal, where he will inspect the Small Industries Center. He will arrive February 5 at Delhi, where he will give a lecture at the University of Delhi.

MIT Alumni Leader

Lobdell Died Jan. 1

Harold E. Lobdell, Dean of Students from 1929 to 1946, died January 1 after a long illness in Houston.



Lobdell, who attended the Institute from 1914 to 1917, was executive vice president of the Alumni Association from 1946 until his retirement last July and was editor and then publisher of Technology Review for 40 years.



Established At MIT In 1881

Vol. 82, No. 28

Cambridge, Massachusetts, Wednesday, January 9, 1963

Five Cents

Council Delays Civil Rights Bid Again

Activities Council at its December 19 meeting rejected conditionally the application of the Civil Rights Committee for permanent recognition as an activity, and accepted a similar application submitted by RADP.

In December of 1961, the Civil Rights Committee had been granted one-year provisional recognition. CRC president Ned Block '64 reviewed the group's activities over the past year. These included participation in a tutorial project and sponsorship of a lecture by Minister Malcolm X.

On rejecting CRC's application, Activities Council extended its provisional status for three months so that the club can reorganize according to a four-point plan:

CRC must (1) meet with the Finance Board to arrive at a mutually satisfactory financial structure; (2) schedule regular business meetings; (3) revise its membership requirements; and (4) obtain the approval of the Secretariat for its constitution.

The application of Rational Approach to Peace and Disarmament (RADP) was submitted with a constitution already approved by the Secretariat.

Upon the recommendation of the Secretariat, qualifications for membership had been made more restrictive, with the executive committee of RADP being given the power to reject any application for membership. Such a decision may be rescinded by a two-thirds vote of the general membership.

After RADP agreed to exercise a stricter control over its finances by opening a checking account, the Activities Council granted its application for a permanent status.

The Council also discussed the application of the Armenian Club for provisional recognition.

The stated purpose of the organization is to enrich the Armenian student's knowledge of his ancestral heritage and to present this heritage to the outside community.

Transcripts of Records

Transcripts with first-term grades included will be available beginning the week of February 18, 1963, if orders are placed now, according to the Registrar's Office.

Transcripts without first-term grades may be ordered up to the above time.

Reserve Room Open Later

The Reserve Book Room in the Hayden Library will operate on the following schedule from January 9 to January 24:

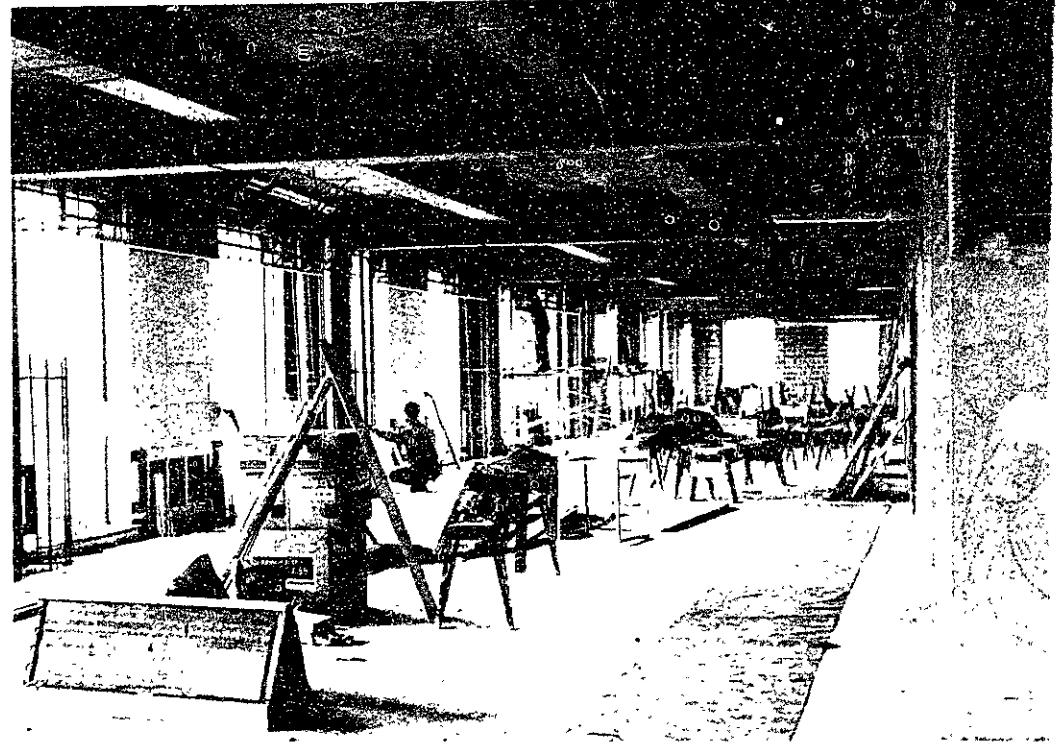
Sunday-Thursday: open until 3:00 a.m.

Friday and Saturday: open until 1:00 a.m.

Construction Proceeds On Tech. Square, Housing Projects

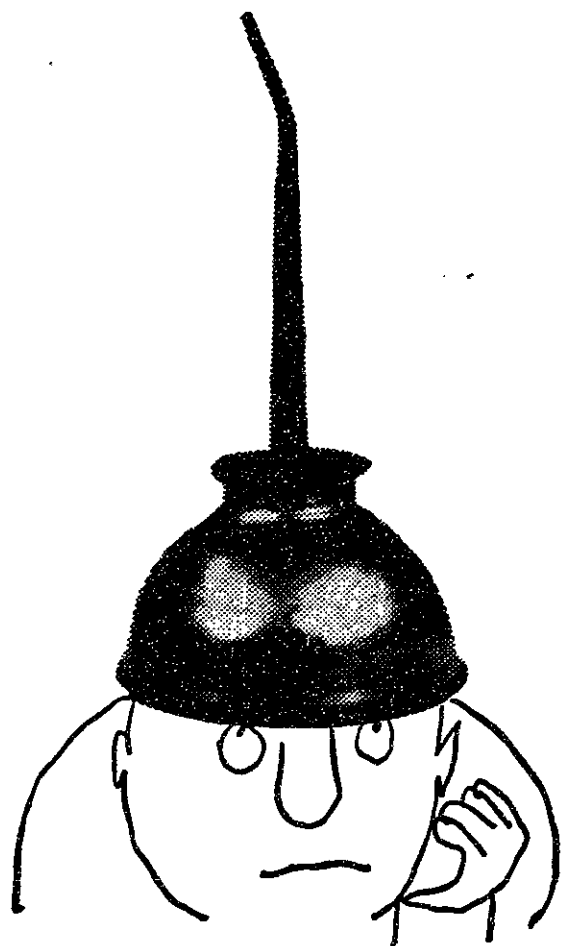


Construction of the four story section of the new married students apartments is viewed from the third floor of the sixteen story tower. The tower will contain efficiency and one bedroom apartments. The other apartments will consist of two bedrooms. The apartments will be ready by fall.



Interior work is now under way in the first building to be constructed in Technology Square. The nine-story building has been leased by IBM, the Institute of Naval Studies and C-E-I-R, Inc.

—Photos by Conrad Grundlehner



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Meteorology Prof. Predicted Cold Mercury Hits -3

"MIT can expect a colder winter this year with an above-average amount of snow." This forecast, now proved correct, was made by Meteorology prof. Hurd C. Willett three months ago. Sunday the temperature fell to 3 below zero.

Willett based this forecast on the level of sunspot activity and the weather patterns of the preceding months. In general, periods of low sunspot activity coincide with periods of colder-than-average weather, although the placement of lows in the 22-year sunspot cycle is important.

The rest of the winter will probably also be colder than normal, with the Boston area getting more than its share of snow. Willett also feels that the second week in February is likely to be the coldest period of the winter, although a warming trend should set in soon afterwards.

Prof. Frederick Sanders, also of the Meteorology Department, noted that the severe snowstorm which centered on Bangor, Maine, during the holidays had the same form as the legendary blizzard of 1888 that hit New York City. Sanders says that we were just missed by both these storms.

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To Study Government

MIT Plans Conference

By Ron Lundquist

"Federal Government—How Much?" will be the topic of an intercollegiate conference on federal government to be held at MIT, April 3-6, according to Steve Kaufman '63, chairman of the intercollegiate Conference Steering Committee.

Fifty colleges from across the nation will send two delegates each to the conference, which is estimated to cost \$14,000. To insure nationwide representation, the traveling expenses in excess of fifty dollars of the visiting delegates will be paid by the conference.

The conference will be divided into three main topics: (1) Role of Government and Maintenance of Economic Growth and Stability; (2) Role of Government in Scientific Research, Development, and Planning; and (3) Role of Government in Labor-Management Relations.

Two experts will speak on each topic. A panel group will then discuss the topic. Delegates will then split up into small discussion groups of thirty persons for further discussion.

More detailed plans for the conference will be announced soon. The general meetings of the conference will be open to all MIT students.

The cost of the conference will be partially covered by the Institute, student government, and registration fees. The steering committee hopes to raise the remainder, about \$6,000., through a grant from a foundation.

Hazel To Read Poems In Library

Poet Robert Hazel, who will read in the Hayden Library Lounge at 8 p.m. tomorrow, says he was 28 years old before he wrote poems that were "any good."

Since then he has become his own kind of poet, and critics, in an age that many consider full of minor poets and poetry, praise him for setting up shop in the grand American bardic tradition—in a direct line from Walt Whitman and Hart Crane.

Hazel, who will appear here as part of the 1962-63 Poetry Series, was born in Indiana in 1921 and spent his childhood on a farm near Bloomington; his poetry often uses images from his boyhood. Also a critic and novelist, he wrote his first book "The Lost Year" at the age of 26. Critic Allen Tate, in an introduction to Hazel's "Poems, 1951-1961," says, "He ought to be one of the best of the second half of the century . . . I do not know any younger American poet who has access to an associative imagery as rich and unpredictable as Mr. Hazel's."

Robert Hazel has recently joined the faculty of New York University as an assistant professor, having previously taught at Oregon State University.

Diddley And Zentner Featured At Weekend

(Continued from Page 1)

necessity that the Weekend be a financial success. Last year's Weekend, held in May, showed a deficit of \$5,500.

A \$3,000 saving in expenses was made possible by canceling plans for a dance floor in the Cage. The dances will be held instead in the Armory. The Armory floor will be without canvas, to make dancing easier.

Entertainment costs will be reduced by about \$500 from last year's figure, according to Chairman Weitz. However, decorations expenses will be increased perhaps as much as \$500. About \$750 will be spent on decorating the Armory.

The committee is running a contest for an outstanding decorations scheme for the Armory, with a \$50 prize to the winning designer. Only two entries have been submitted so far. Entries are still being accepted.

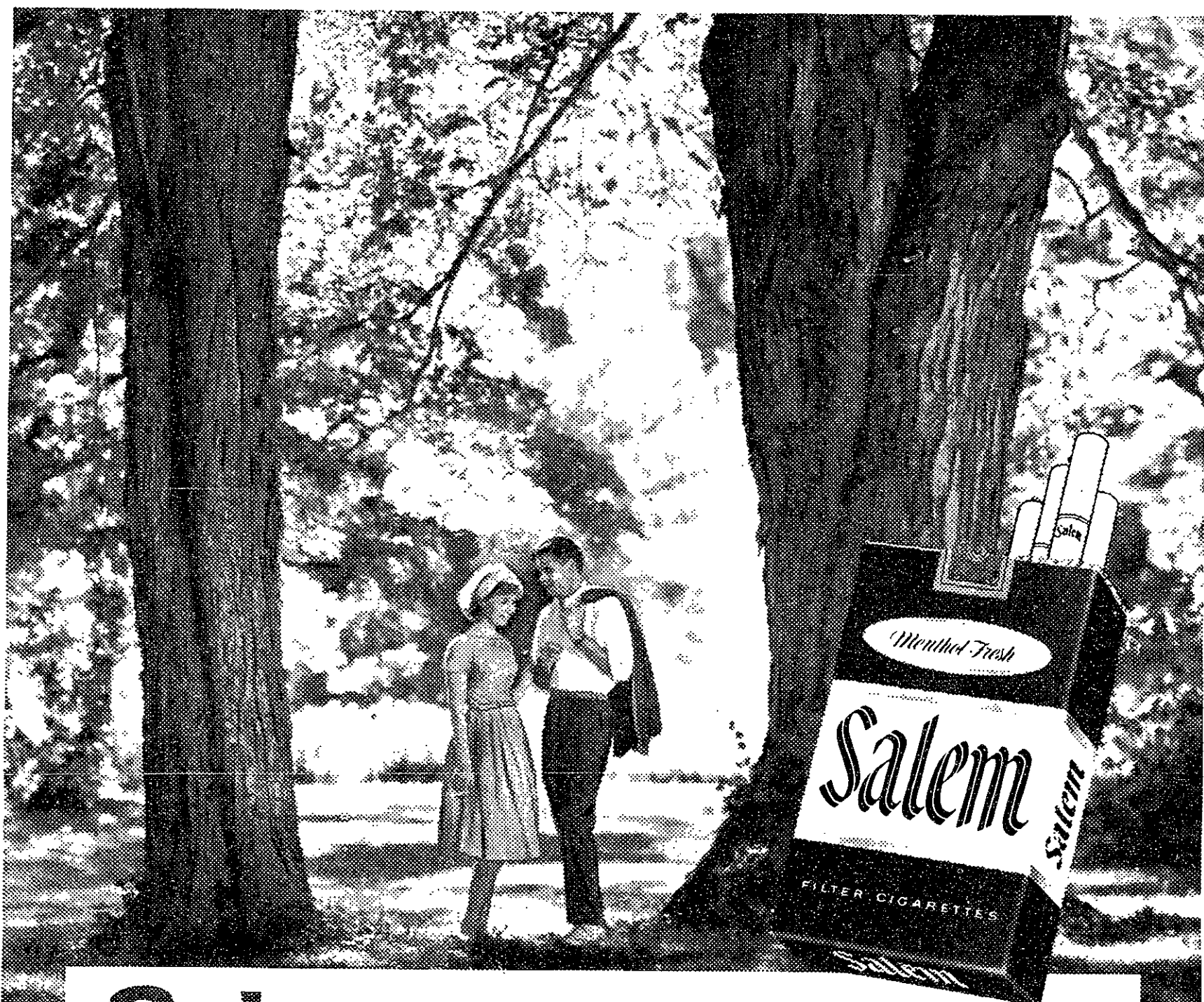
To raise additional funds for the Weekend, the committee planned a souvenir booklet containing advertising. The advertisers sought were companies hiring MIT graduates. The plan was okayed by both Dean Wadleigh and Mr. Harrington, the Placement Officer.

The committee talked with about 35 of the 90 companies receiving the prospectus which illustrated the booklet plan. However, most of the companies preferred to advertise nearer graduation time. Thus, says Weitz, the booklet probably cannot be printed.

The break-even figure for the booklet was 8 ads. The target of 20 ads would have turned a profit of \$1,400.

Bo Diddley's three-hour show will feature two of his million-selling records, "Say Man" and "Hey Bo Diddley."

Si Zentner's orchestra has thirteen pieces and two vocalists. His albums featuring "Up a Lazy River" was a top-selling LP record last year.



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All The News That's Fit To Print — Fills A Single Nicely



—Photos by Conrad Grundlehner

Holiday season witnessed much stuffing, and not all of it in turkeys. On Friday night, John Eck '64, Don Wagner '65, and Joel Greenwald '65 (above, left to right) and ten other Burtonites balled up magazines and 100 issues of THE TECH, and stuffed them into the fifth floor single (center) of Byron Johnston, '63.

(Right) After Johnston opened his gift wrapped door and received "present," the papers were moved down the hall toward Wagner's room.



Computer-Controlled Gun Freezes Electronic Images

By James Veilleux

It's now possible to "freeze" TV images electronically and store them for long periods of time. The remarkable device responsible for this is the storage tube developed by Raytheon's Industrial Components Division in Quincy, Mass. Guests Alvin Luvlin and Walter Cronberg explained its theory and application on Channel 2's "MIT Science Reporter" last week in the program entitled "Time in a Tube."

The tube is similar to one found in a TV set, in that it consists of an electron gun and a screen to receive the beam. The screen, however, is a dielectric wire mesh with 1,000 strands per inch; and the electron beam is twice as fine as that of a standard television tube.

The electron gun, under control of a computer, takes a TV image at the desired instant of time and reproduces it on the wire mesh. The image is then made visible on a collector directly behind it. Because of its fineness, the screen can be divided into sections, so that several images can be frozen simultaneously.

The newest refinement of the storage tube is a dual-gun arrangement, in which one electron gun freezes the images, and the other scans the screen to read them off. In this device, after several images have been compiled, the old ones gradually fade out to make room for more.

Of the many applications for which the tube is designed, radar is probably the most vital. In conventional installations, the radar scanner leaves the pattern it records on a screen in the control room. But the pattern is only visible for a few inches behind the position of the scanner on the screen, while it is turning very rapidly. This set-up requires a darkened room and is very tiring on the eyes.

The storage tube, however, can freeze the entire radar pattern on the screen for one or several rotations of the scanner. When several rotations are recorded, one not only sees the radar pattern but also the path of moving targets. Old patterns, of course, gradually fade out to allow the storage tube to freeze new ones.

This type of installation is already being used by the Coast Guard to control the traffic in New York Harbor. The operation, located on Sandy Hook, reveals the position of buoys marking Ambrose Channel and the motion of ships passing through. Each ship is equipped with a storage tube which informs the captain of his position relative to the other ships and channel markers in his vicinity. In order to determine which vessel is his on the screen, he must make a sharp turn and watch for the radar's response.

Other uses of the tube include recording train numbers in railroad yards and plotting the sequence of events leading to the failure of plant equipment.

It is also an integral part of PLATO (Programmed Logic for Automatic Teaching Operation), a computer which feeds information to students. The student answers problems and can call on the storage tube for a decision on whether or not his answers are correct. This operation was quite successful when tried in conjunction with a math course.

Special Computer Envisioned For Drafting But Use Is Still Five To Ten Years Away

Computers may be used in the future to reduce months of painstaking design and drafting to only a few hours, according to Prof. Robert W. Mann, mechanical engineering.

In a lecture sponsored by MIT's Society of Arts, Prof. Mann described the special computer. It has a TV-type screen on which an engineer could design and improve numerous components and then integrate them into one pattern. The computer could erase and alter the hundreds of possible designs that are now done by hand. Most of the time spent in designing supersonic aircraft, for example, is in developing, changing, testing, and integrating thousands of individual parts on paper. The computer, with its memory capacity, could accomplish this with greater speed and accuracy. The use of these computers, said Prof. Mann, is still five to ten years away.

TFX

As recipient of the award for the TFX, General Dynamics/Fort Worth continues to pioneer technological development in the Southwest. The TFX is a bi-service (Air Force and Navy) aircraft with many unique engineering characteristics. Its development will afford excellent engineering opportunities to qualified engineers and scientists. To take advantage of these opportunities, contact your Placement Director to determine when a GD/FW representative will be on campus, or write Mr. J. B. Ellis, Industrial Relations Administrator-Engineering, General Dynamics/Fort Worth, P. O. Box 748, Fort Worth, Texas. An equal opportunity employer.



GENERAL DYNAMICS | FORT WORTH

THE TECH

Vol. LXXXII No. 28 Jan. 9, 1963

Publish or Perish?

MIT has long been troubled by the encroachment of research activities upon the traditional educational function because of its unique position as a "university polarized around science". For the same reason, it probably has a greater opportunity to rise above the dichotomy between research and teaching.

To understand the effect of MIT's huge (\$20 million for research vs. \$30 million for academic operations in '61) research commitment upon its educational policy, a little information about principles of operation is necessary.

First, MIT considers research by its staff members, particularly the younger men, a necessity. The official position is that unless a man does original work in his field, he cannot remain alive to new developments, ergo, he cannot be a really good teacher. Further, research activity should be emphasized during younger years, both because this is usually a man's most productive period, and because he must establish his professional reputation at this time.

Second, no faculty member is ever paid more because he does research. Rather his salary is split between academic and research budgets according to the time he spends at research.

MIT's total staff is about 1500, of which 700 are faculty members. In '61, about 3/5 of the operations budget was spent for education. If we simply take 3/5 of the above, this leaves MIT with about 420 "full time" teachers. Although this isn't exactly correct, it gives an idea of the research influence, and does distressing things to MIT's fabulous student-faculty ratio.

More distressing is the effect of research policies on educational quality. In addition to regular questions about contract renewal and promotions, most faculty members face the selection or rejection for permanent tenure at age 37. The criteria for this decision (which is made by the administrative budget committee) are multiple. Principally the man must have demonstrated a loyalty to MIT and promise as a scholar and a teacher.

The administration will admit that of the latter two goals, both are not always achieved.

Further, research ability is easier to document and evaluate than teaching ability. For this reason, the man's ability as a scholar often is more important in determining his chances for promotion than his ability as a teacher. Young faculty members know this, and sometimes find themselves compromising their contributions to education in favor of an active research program. After the selection process has taken place, the good educators who are only mediocre scholars are weeded out, leaving the overall emphasis on the faculty's research ability.

We feel that there are two potential flaws in the above system. First, because a man is more interested in education than in research does not mean that he will be a bad professor. The departments and the budget committee are failing in their own responsibilities when they do not establish methods which can be used to evaluate teaching ability as adequately as scholarly worth.

Again, because a man's early years are his most productive he should not be constrained to devote them predominantly to research. The specious argument that only men with established professional reputations can be good teachers and educational innovators is self-defeating and only produces a hierarchy of research-oriented educational conservatives. This is not what MIT wants, but it is what it will get unless special steps are taken at all levels to encourage the man who is truly interested in education and wants to devote his life to it.

Hunger Hurts

During the vacation most students took advantage of the recess in classes and left Cambridge. Those who remained on campus must certainly have felt that they were persona non grata in the eyes of the Institute.

After the Strattons' very gracious open house for these students, what did they find? The only meal service on campus was at lunch for seven days out of the twelve from 24 December to 4 January. For the other five days there were no meals at all.

Although we recognize that it may not have been financially profitable to open any dining service at other times, we feel that MIT is not purely a business enterprise and that the welfare of its people should have been given more consideration.

For example, Pritchett Lounge could have been opened: there were students on campus who would have been very happy to eat there, and there were also enough Walker staff men available to run the service.

The many students who returned from

vacation early last week were startled to find no campus dining service open. We believe there were enough of these people to make it feasible to open the Graduate House Dining Hall, normally MIT's off-season dining room.

We hope that in the future some form of dining service will be provided for students who remain on campus during the holidays.

It is unrealistic to expect that MIT will decrease its research activity, and it should not. Scholarly opportunities are among the principal attractions MIT has for both students and faculty. To use this opportunity to best advantage, MIT must look for more ways to combine the functions of teaching and research. The most promising innovations for science education are those which will supplement expository education with working contact between students and practicing scholars.

We must remember that the goals of education and research are not separate and incompatible, and that MIT's strength as an educational institution lies in a firm unwillingness to compromise its educational function, and an earnest effort to use its research facilities as educational tools. In this course there is a bright future for MIT: the university and the research establishment.

Transcripts

An idea is going the rounds that contributions to extracurricular activities should be recognized by a listing of activities on official transcripts. This innocent-sounding notion has several pitfalls. The main risk is that "free-lancers" may be encouraged to join activities just to make their transcript look good. If no distinction is made between the man who devotes all his free time to really valuable service on one activity and the man who is just a "joiner", listing activities on the transcript will do more harm than good.

One way MIT could provide more official recognition for students who have done an outstanding job in extracurricular endeavors is to provide a flexible number of citations, to be awarded by the Activities Development Board to remarkable students. These citations could be listed on the transcript and give well-earned help to those students in job and graduate school applications. Members of activities could be recommended by the officers of that activity, who would be automatically considered. In this way inequities caused by fluctuations of interest and ability could be avoided, and a citation on the transcript would be recognized as a notable achievement.

Letters to The Tech

Professor takes issue with Editorial Interpretation

To The Editor:

Referring to my article in *The Nation*, your December 18 editorial titled "All a Mistake?" charged me with the view that man's control of atomic power is just that. "We are sure," you wrote, "that Dr. Smith... is among those who would rather nuclear energy had never been discovered."

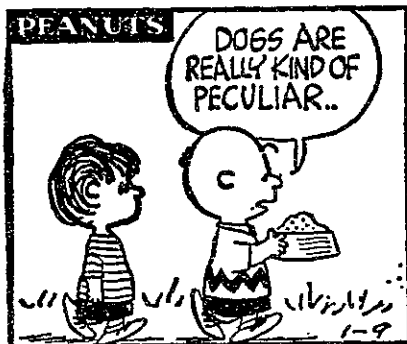
But this is precisely the position I sought to challenge. Citing

Lewis Mumford as representing it, I answered:

"To this position there are three replies: it is irrelevant now, it was impossible then, and it is unseemly whenever... This is no stance for man. Suppose some individual had been given dictatorial power in 1940 to mark the nucleus off-limits for mankind forever. Would he have done so? Should he have done so?"

My clearly implied answer to this rhetorical question was a resounding No!

Huston Smith



PEANUTS appears daily and Sunday in the Boston Herald.

College World

Yale Reprimands Security Chief For Keeping Files On 'Subversives'

By Toby Zidle '63

Yale University has recently found reason to rebuke its Security Chief, John W. Powell. The reason comes mostly from a *Yale Daily News* series of five articles entitled, "John Powell: A G-Man Comes to Yale".

Using as its main source of information campus guards who have rebelled against Powell's administration, the series asserted that the Yale campus police force "is run like the FBI."

"One of John Powell's first moves after assuming the command of the University Police was the institution of an intricate filing system for the classification of reports by police officers on every action they take," the *News* reported.

One of the substantial files kept by the force is allegedly entitled "Subversive Organizations, Activities and Individuals Confidential."

The most serious charge made against Powell by his men involves his allowing security officers from government agencies and private firms to examine some of the unusually complete records he keeps on students.

As a result of the series, Yale Provost Kingman Brewster sent a strongly-worded letter to Powell stating that the Security Chief was "not authorized to engage in the investigation of student or faculty political activities or views."

Security Chief Powell has refused to comment on either the letter or the series of articles.

Graduate Rattle

Students at Caltech, like those at Yale and other colleges are always looking for new ways to tackle problems. Fletch Murphy, in his *California Tech* column "Graduate Rattle", comments:

"Another problem annoying the graduate kitchens is trash disposal on the weekends. If the U. S. had turned out arms in 1942 like these kitchens churn out trash, World War II would have lasted only six months. At MIT they have developed an item called an infinite potential well which they use quite successfully for the instant elimination of anything undesirable. It might be

a good idea to look into the installation of these here."

Large Scale Experiments

The Illinois Institute of Technology and its associated Armour Research Foundation have gone into the business of eliminating "undesirable items"—the Chicago slums. Several multi-storied apartment buildings are being removed by a very fundamental process—fire. The Chicago Fire Department is cooperation, of course, as is Chicago's Department of Urban Renewal, which supplied the buildings.

The purpose of the program is to obtain more reliable data on the rate and mode of fire spread through a building. The results will hopefully lead to improved fire fighting equipment, techniques, and preventive measures.

To obtain the data, ARF is carrying out analytical studies as well as laboratory fire tests on scaled models. In order to achieve some measure of confidence in the results of the studies, however, it is essential to carry out experiments on actual full-scale structures. Consequently, the Foundation got into the slum clearance business.

The large-scale experiments are fully instrumented to gain the required data. The instrumentation consists of numerous temperature sensors properly distributed to measure the temperatures and rate of travel of the fire. It also includes velocity-measuring devices located at external openings to indicate the inflow of air and outflow of gases resulting from the fire. Other instruments are gas sampling tubes and radiometers placed at some distance from the building to determine the radiant heating intensity of the fire. Photographic records are made of the fire.

To simulate realistic conditions, the buildings contain typical furnishings. The experiments consist of starting a fire in one room and allowing it to progress freely throughout the building, as far as prevailing conditions permit. The final stages of the experiments are left in the hands of the Chicago Fire Department.

Statistics Conceal Flight Safety Facts

By Steven Lipner

Flight safety and the problems it presents for the future were the topics of a talk by Mr. Jerome F. Lederer on Tuesday, December 18. Mr. Lederer's talk was the last in a series before the Flight Transportation Seminar.

Mr. Lederer pointed out that statistics may conceal facts about flight safety. For instance, although air travel is safer than all driving, freeway driving is now approaching the safety of commercial flying, in terms of fatalities per passenger mile. And while our present accident figures are quite good, the estimated traffic for the end of the century implies about 10,000 fatalities per year. Thus we cannot be satisfied with

our present safety record, but must improve on it.

General or private aviation was described by Mr. Lederer as having a far worse record than commercial. The major source of accident in this area is the privately owned, rather than the business airplane.

Mr. Lederer attributed the high accident rate in private flying to inadequate pilot training and failure to design equipment to fit the pilot. By contrast, most commercial accidents are due to failure of equipment. He suggested that engineers must realize that private pilots are not as well trained as commercial and design accordingly.

Speaking of the morality of safe-

ty design, Mr. Lederer pointed out that while a commercial passenger

expects absolute safety, the private flyer will accept certain risks. He also warned that regulations for safety must not be so rigorous as to stifle new innovations and destroy profits.

In conclusion, Mr. Lederer showed a number of films of controlled helicopter crashes conducted by the Flight Safety Foundation, of which he is director. The tests were conducted for the Army to determine a way of making helicopters safer in crashes. He described these tests as typical of the work of the Foundation, which conducts research to make flying safer.

Cuban Communist Economy Scrutinized in Degeneration

Communist Cuban economy has come under close scrutiny. In a December 19 lecture at MIT, Alliance for Progress's Dr. Felipe Pazos discussed factors acting to combat inflation.

There was no appreciable rise in the level of prices in Cuba from 1957 to 1959, despite a 30% fall in total exchange receipts and a 25% increase in wages. Rent and utility rates dropped as salaries rose. Cubans consumed their inventories and stopped investing.

High income groups reduced their consumption, compensating for increased consumption by lower income groups. Dr. Pazos also

pointed out that the government discouraged price increases as anti-revolutionary.

More recent information is supplied in the Cuban Student Directorate. The Directorate, whose Boston branch is headed by MIT student Juan Calvo '62, is an underground counter-revolutionary group outlawed by the Cuban Communist regime.

Food rationing has forced prices to exorbitant levels of \$2/pound for beef, \$3.50/pound for pork, \$3/pound for lard, \$1/pound for rice, \$30 for an egg, \$10 for a chicken, and \$35 for a turkey. The "Report" adds that meat is available only on the black market.

The government is closing all privately-owned department stores and establishing a single state store in each city. Buying permits, issued through local "Vigilance Committees" and redeemable only at state stores, are sold to the citizens.

Shoes, however, are only available to government employees and workers. This ruling has deprived the aged and the young of shoes. Many people must go barefooted even in the larger cities.

Pregnant women need special permission to buy food and medicine. Baby clothes are also rationed.

Lack of food and medicine is a critical problem in Cuba. The recent return of the Bay of Pigs Invasion prisoners has shown this dramatically. The prisoners were subjected to malnutrition and gastroenteritis, but could not receive any medical aid for their conditions.

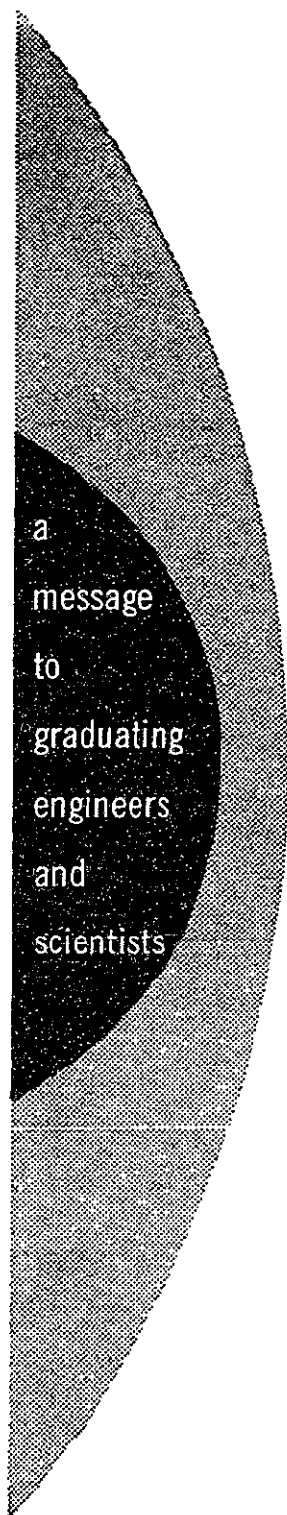
Lack of sanitary practices and unsafe drinking water are contributing to a gastroenteritis epidemic in Cuba. In some of the villages nearly five per cent of the population, most of them children, have died within a week. The government has been taking the corpses from the parents and burying them secretly to avoid mass national panic.

The United States has given \$53 million worth of food and medicine in ransom for the invasion captives. This may serve to halt the epidemic.

Grades Ready January 31

First Term Grade Reports will be mailed to the Term address on Thursday evening, January 31, according to the Registrar's Office.

The Report may be sent to the student at a different address if he calls at the Registrar's Office no later than January 25. Duplicate reports will be sent to the parents of First Year Students.



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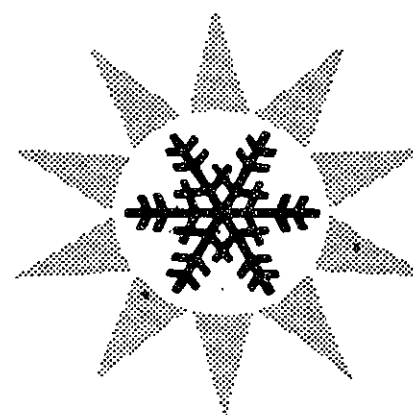
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movies ... 'Lawrence Of Arabia' At Gary Theatre

Any serious attempt at a screen biography of T. E. Lawrence must meet with almost unsurmountable difficulties: Lawrence, a man who became a legend in his own time, was an incredibly complex and many-sided character, and very little is known of his real personality. As a result, "Lawrence of Arabia," visually rich, intellectually honest and careful as it is, meets with only a partial success.

The film does not stand up to detailed psychological examination. I failed to comprehend the psychology behind Lawrence's contradictory behavior: mercy, respect for the human life on the

one hand (he seemed shameful, profoundly depressed when he realized he could enjoy killing), cruelty and extensive bloodshed on the other hand. The reasons for his actions were never clear to me; whatever insights into his personality were present, they seemed as contradictory as his behavior. Robert Bolt's screenplay succeeds only in capturing the external side of Lawrence's character (his exhibitionism, his insecurity) and his relation to his environment and fails in the attempt to probe deeper. Bolt's treatment of Lawrence is in this way somewhat similar to that of Thomas More in his current Broadway success "A Man for All Seasons." Had the film been restricted to the legend of Lawrence, had it not had any psychological pretensions, any desire to portray the man, perhaps it would have been the achievement its talented staff had led us to anticipate.

Directed with painstaking dedication by David Lean ("The Bridge on the River Kwai," "Brief Encounter"), "Lawrence of Arabia" is the product of years of work. Shot on location in the Arab desert, a beautiful color photography and a sense of pictorial composition give it a splendid visual quality. Particularly notable is the use of the desert as a

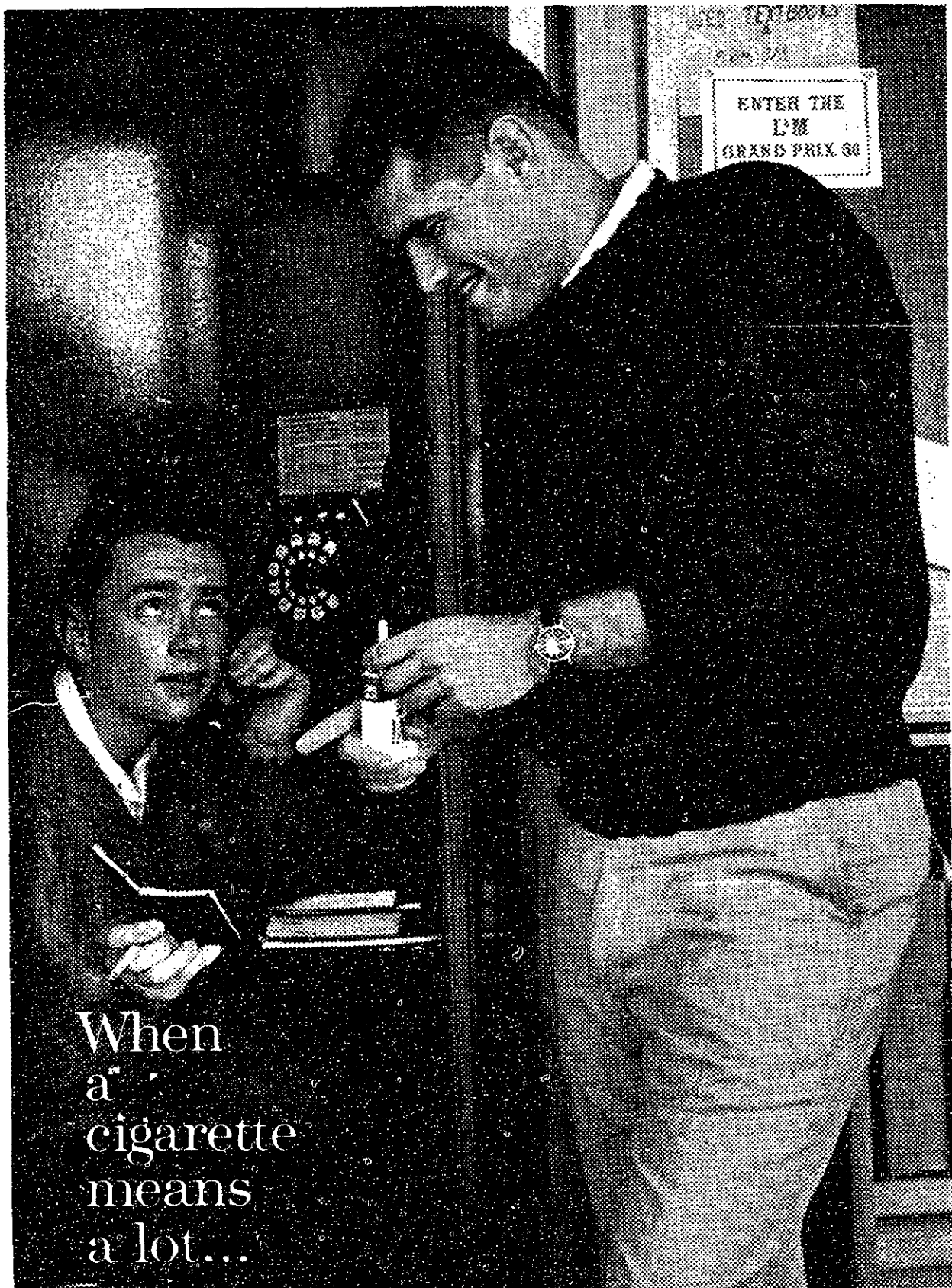
LAWRENCE OF ARABIA: produced by Sam Spiegel; directed by David Lean; screenplay by Robert Bolt; photography by F. A. Young; music by Maurice Jarre; at the Gary Theatre, Boston. With the following cast: Peter O'Toole as T. E. Lawrence, Alec Guinness, Jack Hawkins, Anthony Quinn, Arthur Kennedy, Jose Ferrer, Claude Rains, Anthony Quayle.

cinematic object (Lean's favorite shot is a slow backing away of the camera, leaving the characters as insignificant points in the huge landscape). Scenes are often successful pictorially (the opening sequence of Lawrence riding to his death), dramatically (the officers' club in Cairo, depicting the contrast between Lawrence and his army environment), or both (Lawrence covered with blood while fighting the Turks). The cast is large and competent: Peter O'Toole as Lawrence, Alec Guinness and Anthony Quinn deserve special mention.

If one is content with admiring the polished surface of the film, one will think highly of it. Indeed, "Lawrence of Arabia" remains a good film—beautiful, powerful, always intriguing; certainly one of the best Hollywood offerings of the year; perhaps worthy of all the Academy Awards it will probably receive.


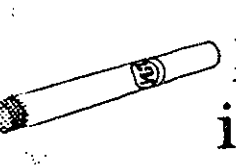
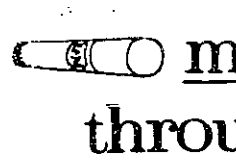
Theatre Schedule

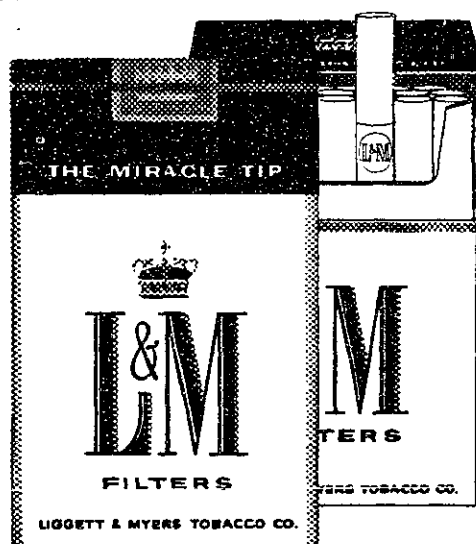
CHARLES PLAYHOUSE —"Little Mary Sunshine", Tues.-Fri., 8:30, Sun., 3:00, 7:30, Sat., 5:30, 9:00.	WELLESLEY HOUSE —"The Lady's not for Burning", Tues.-Sat., 8:30.
IMAGE —54 Charles St., "The Lady's not for Burning", Tues.-Sat., 8:30.	WILBUR —"Shot in the Dark", 8:30, mats. Thurs. 2:15, Sat., 2:30 until Jan. 12; starting Jan. 14, "The Hollow Crown", 8:30, mats. Wed. 2:15, Sat., 2:30.



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Schedule

arh Tues., Jan. 15
 stated, the Sunday
 me as the weekday
 movies are shown

ongest Day," 8:15;
 2:00; Sun., 7:30
 nness Series: "The
 Wed. through Sat.,
 Sun.-Mon.-Tues.,
 next Wed. through
 5:30, 7:30, 9:30,
 Sat. Sun. at 3:30.

MA — "The Wonder-
 Brothers Grimm,"
 Wed., 2:15, Sat.
 5:00.

cio 70," "Tempta-
 io," 10:00, 12:45,
 Sun., 1:00, 3:45,
 Job," 10:55, 1:40,
 Sun., 1:55, 4:40,
 e Raffle," 11:50,
 10:50, Sun., 2:50

Budd," 2:00, 4:15,

day, "The Import-
 10:00, "The Laven-
 3:30, 8:45; starting
 rains of Flying,"
 Sat., Sun., 2:00,
 Sun., 7:00,
 Sun., 3:45.

of Arabia" eves.,
 Sat., Sun., 2:00.
 E— "Period of Ad-
 5:45, 9:35; "Bach-
 3:40 and 7:35.
 Trial and Error,"
 "The Singer Not

4:40, 8:05.
 L— "Search for the
 11:33, 1:36, 3:39,
 Sun., 1:24, 3:27,

M— "Taras Bulba,"
 4:50, 7:05, 9:25,
 6:25, 8:55.
 aedra," 10:09, 12:-
 7:00, 9:15.
 e Lady Vanishes,"
 3:30, 9:00; Saturday,
 day," Room 10-250,

"Boccaccio 70,"
 Dr. Antonio," 10:-
 6:24, 9:08, Sun.,
 8:59; "The Job,"
 7:19, 10:03, Sun.,
 9:54; "The Raffle,"
 8:14, 10:58, Sun.,
 10:50.
 psy," 9:35, 12:30,
 Sun., 1:00, 3:30,

CINEMA— "Divorce
 10, 5:30, 7:30, 9:30,
 Jan. 14, "Marco
 2:40, 6:15, 9:30,
 4, 9:30; "Panic in
 1:00, 4:35, 7:50.
 on the Bounty,"
 Wed., Sat., Sun.,

COMMUNITY PLAY-
 12, "It's Only Mon-
 mats, Sat., 2:00;
 Streetcar Named De-

11:00, 2:40, 6:10,
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theatre ...

'Little Mary' Corny, But Delightful

By David G. Johnson

The Charles Playhouse is now featuring a novel operetta, "Little Mary Sunshine." This musical is melodramatic, corny, hammy and thoroughly delightful. "Little Mary Sunshine" is a satirical excuse for cast and audience alike to have a rollicking good time.

Good is good and bad is bad. Boys and girls naturally fall in love. And Gilbert and Sullivan spin in their graves. The Forest Rangers chase a bad Indian, who is the son of the good Indian, who raised Little Mary Sunshine, who runs the Colorado Inn, to which come young girls from Eastchester Finishing School. The girls fall in love with the Rangers, etc., etc.

The cast contains no pastel characters. Each characterization is strong, and the casting is excellent. With only one exception, the cast is vivacious, uninhibited, and attractive. Everyone sings well, and the voices are well blended and balanced. Some of the dancing is excellent, but all the dancing is at least adequate.

Some of the choreographic special effects—and their execution—are truly remarkable. One especially worthy example is part of a scene in which a Ranger and his girl friend are being pursued by the bad Indian. The couple come to a "river" on the side of the stage, gingerly lower themselves into an imaginary canoe and paddle along the river, scooting themselves forward with each stroke. The Indian "dives" into the river and swims to the other

LITTLE MARY SUNSHINE: produced by Jerome Rosenfeld and Frank Sgrue; directed and choreographed by Neal Kenyon; music directed by Joseph Raposo; lighting by Roger Johnson, Jr.; scenery by Alan Kimmel; costumes by Rivka Berg; production supervisor Aloysius Petrucci; book, music and lyrics by Rick Besoyan at the Charles Playhouse.

THE CAST
 Chief Brown Bear ... Bill Wildin
 Cpl. "Billy" Jester ... Joel Warfield
 Capt. "Big Jim" Warrington ... William Graham
 "Little Mary Sunshine" (Mary Potts) ... Karen Sargent
 Mme. Ernestine Von Liebedich ... Nancy Zala
 Nancy Twinkle ... Amelia Haas
 Fleet Foot ... Robert Chambers
 Yellow Feather ... Garry Phillips
 Gen. Oscar Fairfax, Ret. ... Robert Chambers
 Young Ladies from Eastchester Finishing School:
 Cora ... June Lion
 Henrietta ... Sherry Lambert
 Gwendolyn ... Roberta Sorbello
 Mabel ... Carol Poppenger
 Maud ... Donna Klimoski
 Gentlemen of the United States Forest Rangers:
 Pete ... Ian Brown
 Tex ... Peter Clark
 Slim ... Garry Phillips
 Buster ... Pare M. Lorenz
 Hank ... Tony Wells

side, in a similar fashion. The applause is long and loud.

The production is well adapted

Musical Revue

'Big Broadcast' Initiates Cabaret

The new Cabaret Theatre at the Charles Playhouse opened with "The Big Broadcast of 1963," a musical topical revue directed by Ben Bagley, creator of the "Shoestring" and other New York revues.

The Cabaret Theatre is in the

to the three-quarter round stage of the Charles Playhouse. No one has to watch the action from the rear. However, everyone is subjected to the sight of backstage doors and fire exits immediately offstage. One exit is even spotlighted, since the piano and drum are located in a little nook by the exit. This is a more or less necessary evil, for the excellent music adds greatly to the production, and the stage arrangement does not allow for, nor require, an orchestra pit. A second spotlight would be helpful, but this handicap is usually overcome by skillful use of existing equipment.

Twenty-three song and dance numbers contain a variety to please any taste. The music, dancing, color, comedy, and infectious good cheer make a visit to "Little Mary Sunshine" an evening well spent. However, one should be sure to take advantage of the short intermission, as the seating is not the most spacious in Boston.

newly renovated street level at the Charles Playhouse on 74 Warrenton Street.

"The Big Broadcast of 1963" features satirical sketches and scenes contributed by Sheldon Harnick, Peter Myers, Ronnie Cass and Peter Cook, whose contribution to "Beyond the Fringe" recently delighted Boston audiences.

Performances will be given at 9:00 p.m. on Tuesday, Wednesday and Thursday evenings, Friday and Saturday at 9:00 and 11:00 p.m. and on Sunday at 7:00 and 9:00 p.m.

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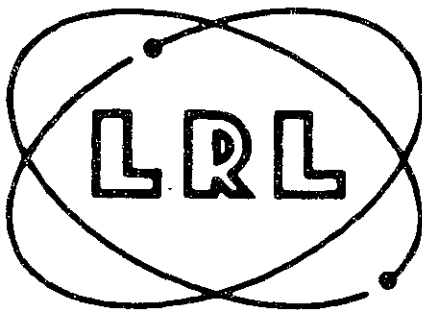
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movies...

'Billy Budd:' A Discussion Of Morality

By Charles Foster Ford

"Billy Budd" may get lost in the flood of sea-epics that have washed over Boston this season, or worse, it may be mistaken for a black-and-white imitation of "Mutiny on The Bounty," made to ride on the publicity tidal-wave. Either would be a mistake. "Billy Budd" is not an escapist adventure, but a serious discussion of morality... and a great job of movie-making in the bargain.

From the moment Billy Budd... the soul of innocent goodness... leaves the merchantman "The Rights of Man" to become part of the crew of "The Avenger" his destruction is all but inevitable. Again and again it is stated that this is a man-of-war, in hostile seas, at war with France. Admiralty law provides the only rules for living. And, as a third vital fact in the background, the crews of two other ships have already mutinied against outdated, inhuman cruelties. The stage is set for a tragedy.

The antagonist here is the master-at-arms Claggart, a man so

BILLY BUDD, from the play by James Cox & Robert Chapman, based on "Billy Budd, Foretopman" by Herman Melville; Script by Peter Ustinov & DeWitt Bodeen; Photographed by Robert Kraskov; Music by Anton Hopkins; Produced and directed by Peter Ustinov. At the Exeter St. Theatre.

CAST
Claggart Robert Ryan
Captain Vere Peter Ustinov
Damsker Melvyn Douglas
Billy Budd Terrence Stamp
Jenkins Ronald Lewis
Lieutenant Wyatt David McCullum
Lieutenant Ratcliffe John Neville
Lieutenant Seymour Paul Rogers
Squeak Lee Montague
Payne Thomas Heathcote

steeped in cruelty and evil that goodness appears to him strange and unnatural. Claggart is hated by the seamen he commands, for his cruelties, and despised by his officers as a liar. Billy's honesty puzzles him, but it is too much a threat to his own power to be ignored. Claggart accuses Billy of fomenting mutiny and murder... a foolhardy mutiny which, in fact, Billy has been trying to prevent. Speechless with rage and injustice, Billy can find no answer but a blow, and Claggart dies of it.

Admiralty law sees this act one of mutinous murder. It thus com-

pels the ship's officers to hang a man they all believe innocent of any evil. The act itself condemns him, and his reasons for it are unimportant. Despite the compassion of the officers, despite the anger of the crew, Billy must hang.

This movie has benefited from the workmanship of several artists. Melville's original was made into a dramatic stageplay by Lewis O. Coxe and Harvard's Robert Chapman, from which Peter Ustinov and DeWitt Bodeen fashioned the screenplay. Each stage of development seems to have refined the original, and to have translated its essential power into new mediums.

The film was photographed (in black-and-white Cinemascope) by Robert Kraskov; Captain Alan Villiers provided three romantic old sailing-ships; Anton Hopkins provided dramatic and exciting music. All three have worked together to fill the film with beautiful technical details which become obvious at second or third viewing; the focus is kept continually on the dramatic matter; the excellent photography and music contribute to the final effect, and never become noticeable in themselves.

Neither is the acting visible by itself; characters are what they must be. Robert Ryan's Claggart is a tense, neurotic, sardonic disciplinarian always waiting to pounce. Terrence Stamp is guileless and simple, and he has managed... by much will-power and many re-takes... to avoid being an insufferable caricature of goodness.

Even Peter Ustinov, though producer-director, is more than just an actor in a very big role. Captain Vere is a man who must try very, very hard not to be human.

Mr. Ustinov has used this film to say some very important things: that war makes those who wage it quite inhuman; and that there is often a horrifying difference between law and justice. These things are very well told, and "Billy Budd" in an unforgettable movie.

Classrooms Abroad Assembling Groups For European Study

Classrooms Abroad is forming language study groups to visit Europe this summer.

Participating students will live in native homes and spend over fifteen hours per week in classroom study of German, Italian, French, or Spanish. Study groups are small; and the program, now in its eighth year, emphasizes intimate contact with the language and culture of the country visited.

The program lasts seven weeks. You may contact Joseph Harrington, at Graduate House 212, a past participant in the program, for more information.

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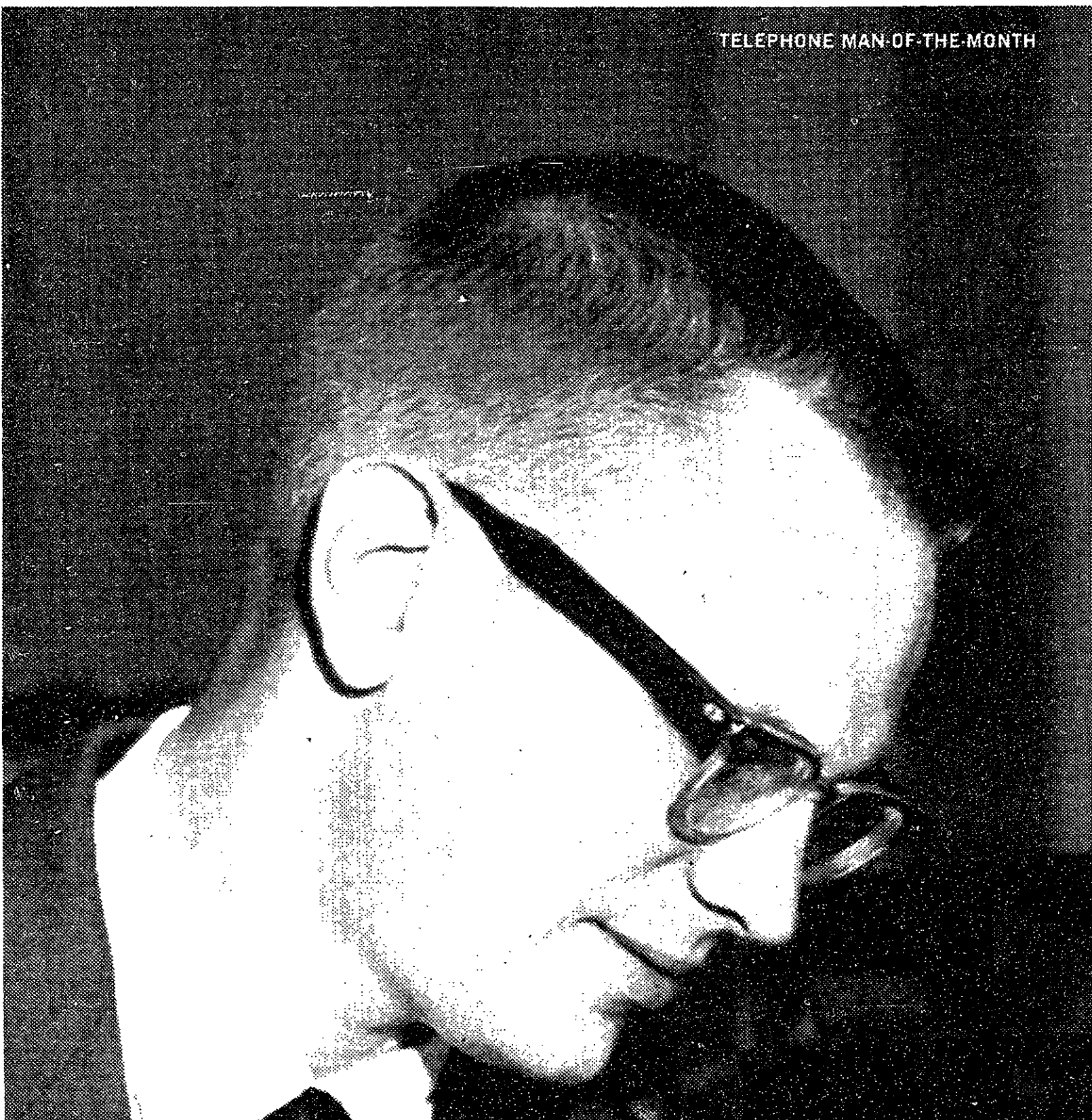
On his present job at the West Chester Office, George supervises a group that coordinates the work of 46 installers and repairmen. He sees to it that customer orders are handled swiftly—a responsibility that calls for a lot of decisions and original ideas.

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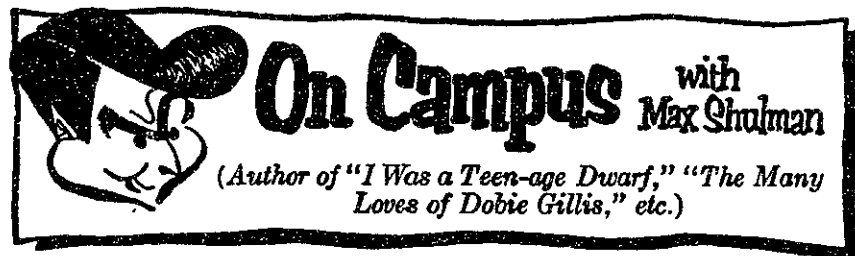


Pernel And Tucker To Perform Monday

The Department of Humanities in a recital of sonatas for piano will present Orrea Pernel, violin and violin by Beethoven and ist on the Bennington College Brahms, on Monday, January 14, music faculty, and Gregory Tucker, at 5 p.m., in the Hayden Music er, pianist, of the M.I.T. faculty, Library.

Program Of Lieder Tonight At Lieder

The New England Conservatory the program will be songs by Bee- will present a program of Lieder thoven, Brahms, Schubert, Schu- tonight, at 8:30 p.m. The concert, mann, Wolf, and Strauss. which will be held in Jordan Hall, This concert will be broadcast is open to the public. Featured on simultaneously over WGBH-FM.



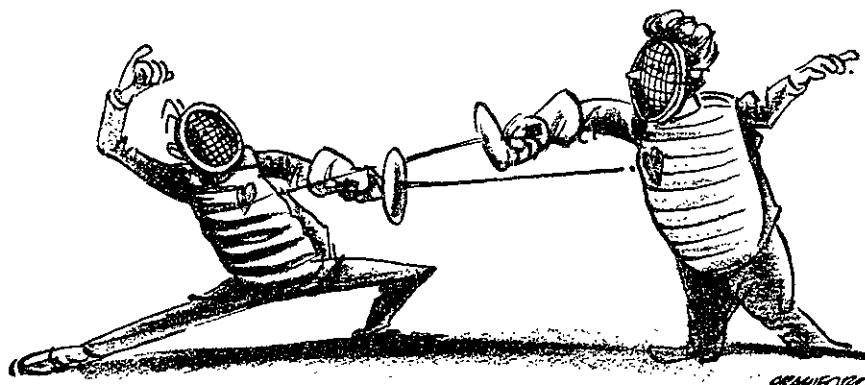
A GUIDE FOR THE UNMONEYED

R. L. Sigafos was a keen, ambitious lad, and when he finished high school he wished mightily to go on with his education. It seemed, however, a forlorn hope. R. L.'s father could not send the boy to college because a series of crop failures had brought him to the brink of disaster. (R. L.'s father raised orchids which, in North Dakota, is a form of agriculture fraught with risk.)

It was, therefore, squarely up to R. L. He could go to college only if he worked his way through. This was a prospect that dismayed him. He had a deep-seated fear that the task would be too great, that he would never be able to carry on a full, busy college life and still find time to do odd jobs and make money.

Racked with misgivings, R. L. paced the streets, pondering his dilemma. One day, walking and brooding, he came upon a park bench and sat down and lit a Marlboro cigarette. R. L. always lit a Marlboro when he was low in his mind. R. L. also always lit a Marlboro when he was merry. The fact is there is no occasion—happy or sad, pensive or exuberant, cheery or solemn—when Marlboro with its fine filter and fine flavor is not entirely welcome, as you will discover when you go to your favorite tobacconist and buy some, as we—the makers of Marlboro and I and R. L. Sigafos—hope you will do real soon.

Sitting and thinking and smoking a Marlboro on the park bench, R. L. was suddenly interrupted by a small, quavering voice which said, "My boy, you are troubled. Can I help?"



I gave a fencing lesson to the Dean of Women

Seated beside R. L. was a tiny, gnarled man with wispy, snow-white hair. His skin was almost transparent, showing a delicate tracery of fragile bones beneath. His back was bent, and his hands trembled. But his eyes were bright and clear. R. L. looked into those eyes, into the wrinkled face. He saw wisdom there, and experience, and kindness. "Do you think, sir," said R. L., "that a boy can work his way through college and still enjoy a rich, full campus life?"

"Why, bless you, son," replied the stranger with a rheumy chuckle, "of course you can. In fact, I did it myself."

"Was it very hard?" asked R. L.

"Yes, it was hard," the stranger admitted. "But when one is young, all things are possible. I, for example, used to get up at five o'clock every morning to stoke the furnace at the SAE house. At six I had to milk the ewes at the school of animal husbandry. At seven I gave a fencing lesson to the Dean of Women. At eight I had a class in early Runic poets. At nine I gave haircuts at the Gamma Phi Beta house. At ten I had differential calculus. At eleven I posed for a life class. At twelve I watered soup at the Union. At one I had a class in Oriental languages. At two I exercised the mice in psych lab. At three I gave the Dean of Women another fencing lesson. At four I had qualitative analysis. At five I went clamming. At six I cut meat for the football team. At seven I ushered at the movies. At eight I had my ears pierced so that at nine I could tell fortunes in a gypsy tearoom. At ten I had a class in astronomy. At eleven I tucked in the football team. At twelve I studied and at three I went to sleep."

"Sir," cried R. L., "I am moved and inspired by your shining example!"

"It was nothing," said the stranger modestly, shaking his frail white head. "It was just hard work, and hard work never hurt anybody."

"Would you mind telling me, sir," said R. L., "how old you are now?"

"Twenty-two," said the stranger.

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Making the Scene

MAKING THE SCENE THIS WEEK

MUSIC

Program of Lieder—Jan. 9, 8:30, Jordan Hall; songs by Beethoven, Brahms, Schubert, Schumann, Wolf, Strauss.

Jose Greco—Jan. 11, 8:30, Symphony Hall.

Vaughn Meader — with the cast of "The First Family", Jan. 12, 8:30, Donnelly Theater; tickets \$4.75, \$4.00, \$3.50, \$2.75, \$2.00.

NDR Symphony Orchestra of Hamburg—Jan. 13, Symphony Hall, 3:00; Philippe Entremont pianist.

Amati String Quartet—Jan. 13, 3:00, Gardner Museum; Schoenberg's quartet for strings and soprano with Helen Thigpen, and works by Mozart and Debussy.

Claremont Quartet — Jan. 13, 3:00, Kresge Audit.

MISCELLANEOUS

W. H. Auden—poet's reading, Jan. 9, 7:45, Alumnae Hall, Wellesley College.

Jean Gottmann — "The Challenge of Magalopolis", Pendleton Hall, 7:45, Jan. 10, Wellesley College.

MIT Classics Series—"The Lady Vanishes", Room 10-250, 6:30, 9:00; Michael Redgrave stars in this fast-moving Hitchcock spy drama filmed with the Continental Express as the setting. (USA).

MIT Entertainment Series—"Never on Sunday", Jan. 12, Room 10-250, 5:15, 7:30, 9:45. Melina Mercouri.

Jules Dassin, Georges Foundas, Titos Vantis. An American philosopher visiting Greece attempts to reform a prostitute by asking her to abandon the profession for a fortnight, convinced this will change her way of life. It doesn't.

NEXT WEEK MUSIC

Pasquale Principe—clarinet, Jordan Hall, 8:30, Jan. 16; Beethoven "Trio for Clarinet, Cello and Piano", Mozart, "Quintet in A major", works by Jommella, Galuppi, Villa-Lobos, Fernandez.

Marion Valasek—flute, Jan. 17, 8:30, Jordan Hall; Mozart "Concerto in C major for Flute, Harp and Orchestra", Hanson "Serenade for Flute, Harp, and String Orchestra", works by Prokofiev and Pousset.

BSO open rehearsals—Jan. 17, Symphony Hall, 7:30, doors open at 6:45.

Artur Rubenstein—Jan. 20, Symphony Hall, 3:00; tickets, \$5.50, \$5.00, \$4.50, \$4.00, \$3.00.

David Craighead—organ concert, Symphony Hall, Jan. 20, 6:00; tickets \$1.50.

Linda Newman — soprano, Jan. 20, 3:00, Gardner Museum.

MISCELLANEOUS

MIT Little Theatre—William Saroyan's "The Time of Your Life", Jan. 17-19, 24-26, 8:30; tickets \$1.50.

Anna Russell—Jan. 18, 8:30, Kresge Auditorium; tickets, \$2.50, \$3.00.

New England Sports Show—Jan. 19-26, Commonwealth Armory.

Community Players To Offer Saroyan's 'Time of Your Life'

The MIT Community Players will present William Saroyan's "The Time of Your Life," January 17, 18, 19, and 24, 25, 26, in Kresge Little Theatre at 8:30 p.m.

This play represents life in America during the thirties. It is the second of three plays to be presented by the Players this year concerning the theme: the individual's identity within his society.

Mr. Maurice Breslow, technical director of the Wellesley College Theatre and the Weston (Vermont) Summer Playhouse, will direct.

Tickets are \$1.50 and may be purchased weekdays from 11:30, 1:30 in the lobby of Building 10, or reserved by calling extension 2910.

The traditional opening night reception, to which the audience is invited, will be Thursday, January 17.

Odada Abstracts Now At Library

An exhibition of twenty paintings by Kenzo Odada, one of Japan's leading modern painters, opened Monday at Hayden Library and will be on view through January 27.

Odada has been selected by both Japan and the United States to represent them, individually, in exhibitions and competitions. Prizes he has won include the 1958 Venice Biennial representing Japan) and the 1957 So. Carolina Biennial. His work is represented in major U. S. museum collections.

Odada's paintings are wholly abstract and give much attention to the relationship of masses and color areas and textures.

Gottmann Discusses Megalopolis Crisis

Jean Gottmann, an authority on urbanization, will speak at Wellesley College Thursday evening on the development of large cities along the North Atlantic coast of America.

Currently on leave from his post as professor of geography at the University of Paris, he will lecture at 7:45 in Pendleton Hall. His speech is entitled "The Challenge of Megalopolis."

Peace Corps Tests To Be Given Jan. 26

Peace Corps Placement tests will be given at 8:30 a.m. on Saturday, January 26, at Memorial Hall, Harvard University, at Kirkland and Cambridge Streets.

To qualify for the test, fill out a Peace Corps Questionnaire available at any Post Office and from the Peace Corps, Washington 25, D.C. Bring it to the test center or send it to the Peace Corps.

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"The Singer Not the Song"

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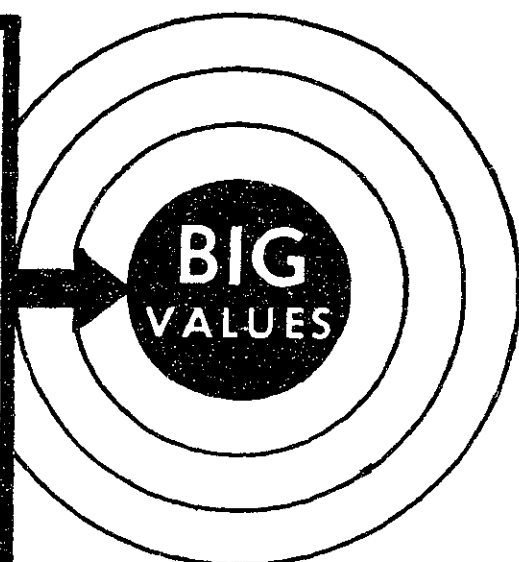
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TECH COOP

Tech Swimmers Win Over Adelphi, 56-38 Season Mark At 4-1

MIT's varsity swimmers pushed their record to 4-1 with a 56-38 victory over Adelphi.

Swimming at Alumni Pool, the Engineer's opened the meet with a victory in the 400 yard medley relay in 4:12.5. Members of that relay team were Frank Mechura '65, Charles Einolf '63, Ron Matlin '63, and Joe Schrade '63.

St. Peters Places 2nd

In the 200 yard freestyle Dick St. Peters '65 placed a close second against Adelphi's best distance man, Bob Geroch '64 finished third in the race. In the 50 yard freestyle Sandy Blanchard '65 placed second with Henry Goldfein '65 finishing a close third. Again in the 200 yard individual medley the Techmen swam a close race with Bill Brody '65 closing second and Eric Jensen '64 placing third.

In the one meter diving, Steve Snover '65 came through with a first place with 49.28 points. Bill Huntington '65 followed up with a second place.

In the 200 yard butterfly, Matlin placed third. Likewise, in the 100 yard freestyle Schrade finished in third place. The Engineers pulled out with another first and second in the 200 yard backstroke. Mechura placed first in 2:24.3 with Tim Sloat '63 second.

In the 500 yard freestyle, St. Peters swam an even closer race than the 200 to place second. Again Geroch followed St. Peters by placing third.

Einolf, Peacock Clinch Victory

With the score at 41-37 the Techmen needed a first and second in the 200-yard breaststroke to win the meet. Einolf finished well ahead to place first in 2:38.6. Cash Peacock '65, swimming hard, also pulled well ahead of Adelphi to place second and provide Tech with the victory. In the 400 yard freestyle, the relay of Blanchard, Bob Bachrach '64, St. Peters, and Schrade increased the victory margin with a first over the Adelphi team.

On Deck

Today, January 9

Fencing (V) Holy Cross, Home, 7:00 PM
Hockey (V) — Amherst, Away, 3:30 PM
Hockey (F) — Amherst, Away, 7:00 PM
Squash (F) — Andover, Home, 3:00 PM
Swimming (V) — Wesleyan, Home, 5:00 PM
Swimming (F) — Wesleyan, Home, 3:30 PM
Wrestling (V) — Brown, Home, 7:30 PM
Wrestling (F) — Brown, Home, 6:00 PM

Thursday, January 10

Basketball (V) — New Hampshire, Home, 8:15 PM
Basketball (F) — New Hampshire, Home, 6:30 PM

Friday, January 11

Hockey (V) — Connecticut, Home, 7:00 PM

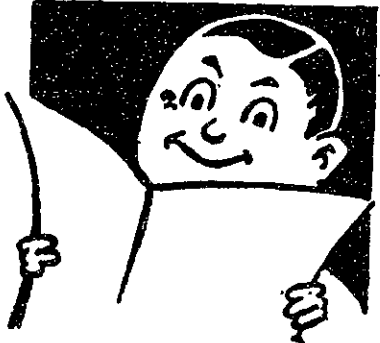
Saturday, January 12

Basketball (V) — Bowdoin, Away, 8:15 PM
Basketball (F) — New Prep, Home, 6:30 PM
Fencing (V) — Trinity, Home, 2:00 PM
Fencing (F) — The Lennox School, Home, 2:00 PM
Hockey (V) — Wesleyan, Home, 7:00 PM
Hockey (F) — Governor Dummer Academy, Away, 2:00 PM
Pistol — Navy, Home, 2:00 PM
Squash (V) — Adelphi, Home, 2:00 PM
Squash (F) — St. Paul's, Home, 3:30 PM
Swimming (F) — Army, Away
Indoor Track (V) — Knights of Columbus Meet, Boston Garden
Wrestling (V) — Amherst, Away, 2:00 PM

Tuesday, January 15

Basketball (V) — Harvard (J.V.), Away, 7:30 PM

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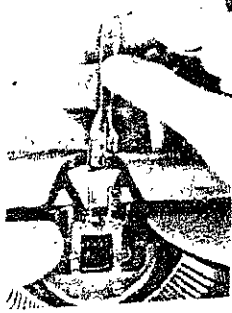
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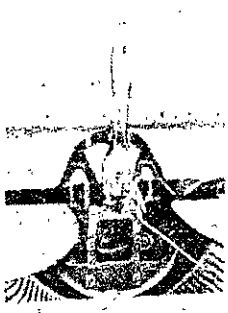
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THE ANSWER:

Florida Keys

Douglas C. Davis, U. of Arizona
apartments?
THE QUESTION: What opens Florida

THE ANSWER:

KNEE SOCKS

Ken L. Sandy, Michigan State U.
you box with a midget?
THE QUESTION: What do you get when

THE ANSWER IS:

THE ANSWER:

Don't Give up
the Ship

Janet C. Easterbrooks, Syracuse U.
if you can't swim?
THE QUESTION: What should you do

THE ANSWER:

Stagnation

Jeanette Schemel, Sacramento State College
country without women?
THE QUESTION: What do you call a

THE ANSWER:

FIRST
DOWN

Gerald R. McCreary, North Texas State U.
baby duck's first feathers?
THE QUESTION: What do you call a

THE ANSWER:

MYTH

Dana R. Trout, U. of California
a thingie girl?
THE QUESTION: How do you address

Get Lucky

the taste to start with...the taste to stay with

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Engineers Capture Hoop Title in Montreal Tournament

Victorious in the Montreal Invitational Tourney and spurred by 3 wins on their recent Canadian tour, MIT's Cagers return to the home court tomorrow night against University of New Hampshire, in the hopes of following the trail of the '62-'63 squad. That record shattering Tech Five posted a 2-4 mark before January 1st and went on to win all fifteen games in 1962. The present team went 1-5 in 1962 and has a 3-1 record since January 1st, the single loss coming in a double overtime contest.

In the Montreal tourney, last Friday and Saturday, MIT trounced Sir George Williams University 88-39 while Pennsylvania Military College defeated Queens College of Ontario, 70-62 in opening rounds.

MIT Takes Trophy

In the consolation contest SGWU upset Queens 64-51. In the final, Tech was extended, but won its 4th of the year against 6 losses with a 69-64 decision over PMC. For this tournament victory, MIT takes possession of the Sir George Williams Trophy.

Tuesday and Wednesday, Janu-

ary 1st and 2nd, MIT engaged in the third annual Bluenose Classic basketball tournament in Halifax, Nova Scotia. In the opening round games, the University of Vermont clobbered St. Francis Xavier 110-55, and MIT stopped defending champion Acadia of Wolfville, N. S., 60-58.

Vermont Stops Techmen

In the consolation round Acadia trounced St. F.X. 72-51. In the championship final, taped for network, TV, and attended by over 1500 people, Vermont defeated the Engineers in the second overtime 78-70.

The Beavers led Acadia all the way. Bill Eagleson's 13 points and Bob Grady's 11 led Tech to a 35-19 lead at the half. Acadia, known locally as the "Axemen" lived up to their nickname in the second half. The Axemen continually fouled the Tech backcourt and racked up 16 personals in the half.

Losers Held To 3 Field Goals

Tech's shooters cooled down and hit just 3 field goals in the second half. Here, Acadia turned red hot. Steve Koncholski sank 7 baskets and 16 points in the second half as Acadia cut down the huge lead. With 30 to go, and Tech leading by only 56-54, Jeff Paarz converted two foul tosses. The Axemen hit their next shot, but Paarz clicked on another one-and-one. A last-second shot made the score close at 60-58.

MIT played its best ball of the season against Vermont, a top Yankee Conference contender. With Eagleson and Grady showing the way and with Jack Moter turning in a fine performance, Tech opened up a 35-29 spread by half-time.

Grady Foul Shot Knots Game

Benny Becton's pivot shot tied the score for Vermont with 4:30 to go. The lead see-sawed as both teams played wonderful clutch basketball. Grady's foul shots produced a 61-61 tie with 30 seconds to go. Tech stole the ball and held for the last shot. A Vermont block ended this threat. Becton scored first in the overtime, but Eagleson's foul shots tied it up. A Grady jumper gave Tech the

lead with 3:15 to go, but Vermont tied the count at 65 with 1:45 left.

Tech again held the ball for the last shot, but Grady's 15-footer rimmed the hoop at the buzzer.

Vermont's Bill Shabel connected on a three-point-play early in the second overtime. Becton rebounded a short miss, and the Green Mountain Boys made good on their next play. Tech opened up in an attempt to catch up, but were out-gunned 13-5 in the overtime. Vermont 78-MIT 70.

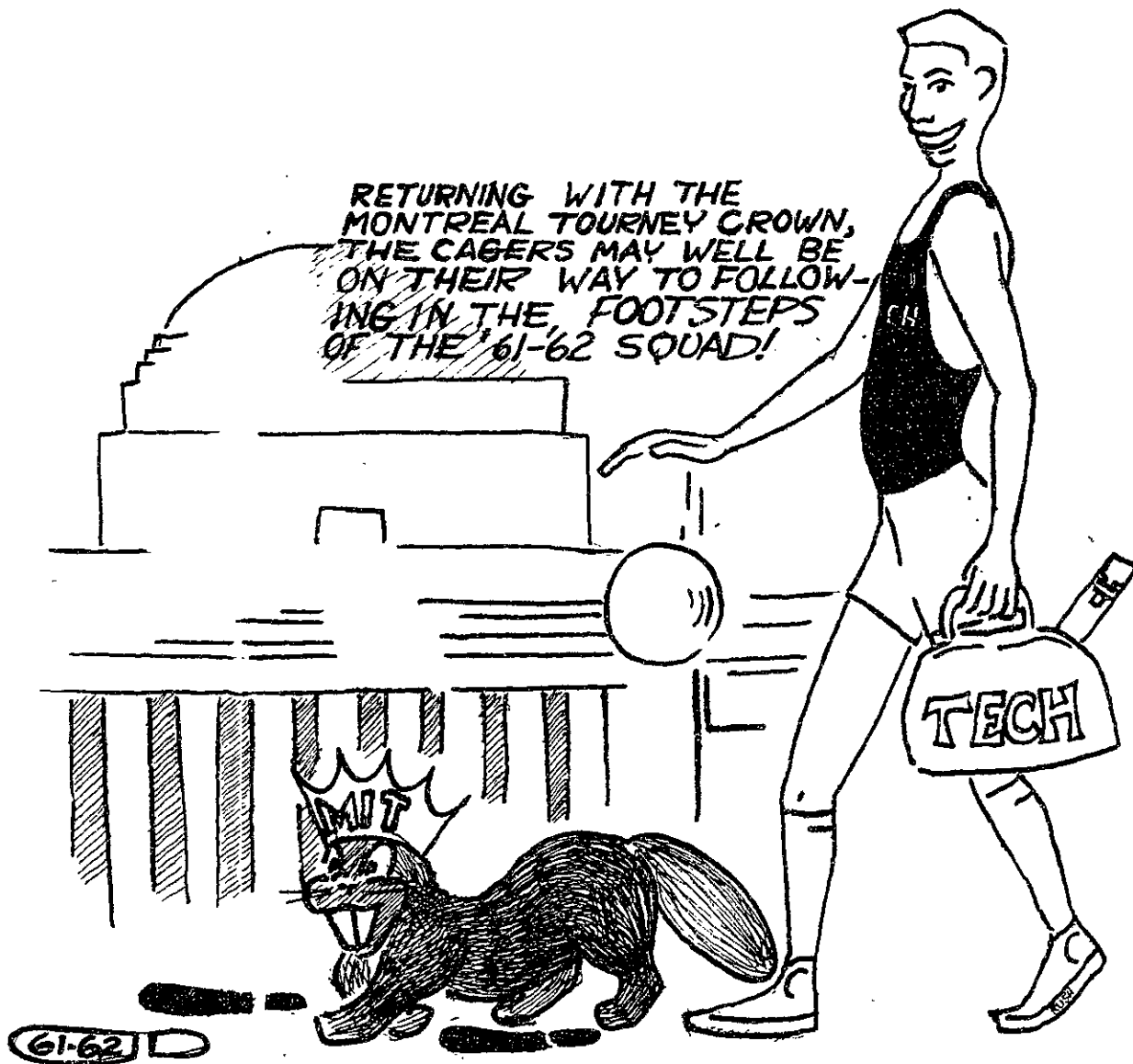
Tech again held the ball for the last shot, but Grady's 15-footer rimmed the hoop at the buzzer.

Eagleson Named MVP

Grady had 23 and Eagleson 21 for Tech. Becton had 20 and Shabel 19 for Vermont. For their fine performances, these men were elected to the tournament all-star team, along with Acadia's Koncholski. MIT's Bill Eagleson was selected Most Valuable Player in this edition of the Bluenose Classic.

The MIT-Sir George Williams game was only a brisk workout as the Beavers threw halves of 38 and 50 at the unfortunate Canadians. Moter had 17 in 25 minutes of play, Eagleson had 13, and Kent Groninger scored 12. In shorter relief stints, Don Joseph '63 scored

RETURNING WITH THE MONTREAL TOURNAMENT CROWN, THE CAGERS MAY WELL BE ON THEIR WAY TO FOLLOWING IN THE FOOTSTEPS OF THE '61-'62 SQUAD!



Paarz	4	1	3	9
McQuilken	0	2	1	2
Alusic	1	1	0	2
TOTALS	22	28	15	70

Sir George Williams	FG	FT	PF	PTS
Faust	1	0	0	2
Cummings	1	0	2	2
Habert	5	5	5	15
Green	1	0	2	2
Nathan	5	0	4	10
Igaz	1	0	2	2
McCrinmon	0	0	1	0
Watson	1	3	2	5
Gavie	0	0	1	0
Barcun	0	1	3	1
TOTALS	15	9	22	38

MIT	FG	FT	PF	PTS
Grady	1	1	2	3
Paarz	4	1	1	9
Groninger	6	0	0	12
Eagleson	5	3	3	13
Moter	3	1	1	7
Alusic	2	0	1	4
McQuilken	2	3	2	6
Quaid	3	0	0	6
Yin	3	0	0	6
Larsen	1	0	2	2
Joseph	3	3	1	9
TOTALS	37	14	16	88

PMO	FG	FT	PF	PTS
Hamilton	2	3	3	7
Csaszar	11	1	1	23
Thomas	2	0	3	4
Zucca	4	3	3	11
Downey	3	0	5	6
Sack	1	0	2	2
Burke	0	1	1	1
Trainer	4	2	4	10
TOTALS	27	10	22	64

MIT	FG	FT	PF	PTS
Grady	2	2	4	6
Groninger	0	3	2	3
Paarz	9	5	0	23
Eagleson	4	3	1	16
Moter	4	3	2	11
Yin	1	6	0	4
McQuilken	1	1	1	3
TOTALS	21	27	10	66

Intramural Volleyball Begins February 10; Qualified Refs Needed

MIT's Intramural volleyball season will begin on February 10. All rosters are due in the Athletic Association, along with the regular 10 deposit, by January 18.

This year's league will be organized much the same as last year's, but more participation is expected. The Metallurgy Grad students, last year's champions, should again prove the team to beat. Other groups expected to field strong teams are Sigma Alpha Epsilon, Alpha Tau Omega, and Grad Management.

Qualified referees are needed badly. Anyone with experience should contact Fred Souk at SAE, extension 3782. Adequate compensation is provided, and the services of good referees will be appreciated.

Fijis, Theta Delts, East Campus Score Wins In Intramural Hockey

Several important games were played in the week before Christmas vacation, as the regular intramural hockey season approached its close.

Phi Gamma Delta continued its winning ways with a 4-1 victory over Senior House. Norm Dorf '63 scored 2 goals and 2 assists, and leads all scorers in IM hockey with 20 points. Later in the week, Senior House downed Sigma Phi Epsilon, 9-1.

Theta Delts Win Twice

Theta Delta Chi moved into second place in the B league, with a 3-0 shutout over Lambda Chi Alpha. The Theta Delts also defeated Baker House, 6-0, on three goals by Foster.

Chu of East Campus scored 6 goals to lead his team to a 10-1 victory over Alpha Epsilon Pi, as East Campus retained first place in the E league. Chu has 16 goals, 1 assist for 17 points and second place in individual scoring.

victory as Downie spearheaded their attack with 26 points.

The final standings in the Eastern League showed a tie for the lead between Senior House B and Theta Delta Chi. Senior House downed Kappa Sigma, 36-17, as Sigma Phi Epsilon B overcame the Theta Delts by 34-32, to produce the league tie.

Intramural Basketball Standings	
American League	
Graduate House "A"	6-1
Paradise Cafe	6-1
Lambda Chi "A"	5-2
Senior House "A"	4-3
Sigma Alpha Epsilon	3-4
Alpha Tau Omega "A"	3-4
Sigma Chi	1-6
Phi Delta Theta	0-7
National League	
Graduate Management "A"	7-1
Baker House "A"	6-2
Phi Gamma Delta	4-3
Graduate House "B"	3-4
Sigma Phi Epsilon "A"	3-4
Theta Chi "A"	3-4
Elpha Epsilon Pi	2-5
Burton House "A"	1-6
Pacific Coast League	
Political Science	7-0
Graduate Management "B"	5-2
Phi Mu Delta	4-2
Delta Kappa Epsilon	3-2

American Association (final)	
Delta Tau Delta	4-0
Delta Upsilon	4-0
Burton House "B"	4-0
Student House	4-0
Lambda Chi "B"	4-0
Phi Kappa Sigma	4-0
International League	
Phi Sigma Kappa	4-0
Pi Lambda Phi "A"	4-0
Baker House "B"	4-0
Sigma Alpha Mu	4-0
Zeta Beta Tau	4-0
Phi Kappa Theta	4-0
Eastern League	
Senior House "B"	4-0
Theta Delta Chi	4-0
Sigma Phi Epsilon "B"	4-0
Kappa Sigma	4-0
Burton House "C"	4-0
Chi Phi	4-0
Alpha Tau Omega "B"	4-0
Southern League	
Burton Fine 5th	4-0
Baker House "C"	4-0
Non-resident Students	4-0
Graduate Dining Staff	4-0
Theta Chi "B"	4-0
Pi Lambda Phi "B"	4-0
Burton Dining Staff	4-0
Western League	
Club 414	4-0
The Chokers	4-0
Hayden 2nd	4-0
Baker House "D"	4-0
Senior House "C"	4-0
The Avantis	4-0
Bemis 4th	4-0

GMA, Poli Sci, DTD Clinch IM Basketball Titles

The intramural basketball teams closed out their regular seasons the week before Christmas vacation, with the final standings showing ties for first place in 4 of the 8 leagues. Grad Management A, Political Science, Delta Tau Delta, and Burton Fine 5th clinched league titles. Playoffs for the remaining undecided league championships, and the regular inter-league playoffs will be held this week.

LXA Edges Paradise Cafe

Paradise Cafe and Grad House A finished their seasons tied for the American League with identical 6-1 records. Paradise Cafe had the opportunity of clinching the championship in the league's final game, but was edged by Lambda Chi A, as Beach led the winners with 14 points. Grad House gained an important 70-36 win over Sigma Chi to tie for the league lead.

GMA Overcomes Baker

The National League's championship game pitted Baker House A against Grad Management A. Baker had triumphed, 69-55, in a previous meeting, but this time the Grads fought to a 56-38 victory for the league championship. Olcott led the victors with 21 points.

In the only game played in the Pacific Coast League, Political Science romped over Tau Epsilon Phi, by 73-17, to finish at the top of the league standings with a 7-0 record. Bannow tallied 20, and Kramer added 18 for the victors.

Delts Down Du A.A. Title

The final game played in the American Association turned out to be a championship contest between Delta Tau Delta and Delta Upsilon, as both teams went into the game with 4-0 records. The Delts took the title with a 37-25

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